

matically different from the pre-1963 era, when the motto for Congress might well have been millions for research but nothing for medical school teaching.

Just before Congress recessed, for example, the Senate and House passed the Health Manpower Bill, which combines extensions and revisions of the Health Professions Assistance Act and four other major pieces of legislation.*

It has been estimated that 40 federal laws now affect medical schools, but the new legislation has brought not only new funds and new opportunities to the medical schools but also added responsibilities and fresh financial strains.

Few medical schools have large endowments, and, as medical school operating budgets have expanded, the problems of financing have escalated. Congress has been a demanding patron. It has hewn to a matching-funds philosophy in providing for construction of both research and teaching facilities, although this year Congress increased the share the federal government may provide from half to two-thirds in certain cases. Congressional intent in providing the teaching facilities was to encourage an increase in medical school enrollment. Recipient schools have often incurred costs beyond those covered by federal funds.

New laws left at the doors of medical schools the responsibility for staffing federally supported community health programs and for training nurses, medical technologists and therapists, and other health service personnel.

Medical school fortunes are usually intertwined, officially or otherwise, with medical centers, which are increasingly expensive and complex to run. When salaries of interns and residents go up, for example, the salaries of medical school instructors also rise. Medical school and hospital budgets are often kept separate, but the interaction inevitably affects medical school economics.

One serious problem which insiders privately admit is fairly general is the ossified state of medical school administration. The oligarchical, post-Flexner government of the medical schools has lived on into a period when it can be disastrously unsuitable.

University-connected medical schools

face difficulties on another flank. Many university administrations which in the past were willing to scrape up funds to tide their medical schools over, now declare themselves unable to do so any longer. Medical schools related to pri-

vate universities are, in a number of cases, seeking statutory divorces and courting public authorities with a view to finding a new meal ticket.

The private medical schools—which number about half the total of 100—

FDA Cans Irradiated Bacon

The Food and Drug Administration (FDA) has decided to rescind its approval of irradiated canned bacon, which it had originally granted in 1963. Daniel Banes, associate FDA commissioner for science, told the Joint Committee on Atomic Energy on 30 July that new data on irradiated bacon had shown "suggestions of adverse effects." He produced charts which showed that studies of feeding irradiated bacon to rats indicated deleterious effects on the reproductive process, "apparent production of antinutrient factors," and "apparent effects on mortality, body weight gain, and red blood cell count and hemoglobin."

Irradiated bacon has not been produced for the commercial market. Two private companies did produce 15 tons of it in 1966, but that bacon—like irradiated bacon produced by the Army—was used by the military only, for tests and experiments; it was not part of the regular military diet.

FDA decided to reexamine the data for irradiated bacon after turning down a Department of the Army petition for irradiated canned ham in mid-April (*Science*, 12 July). Since FDA scientists found "suggestions of adverse effects" in data received in support of the ham petition, FDA decided to ask for more data for bacon, and then found the deleterious effects that Banes enumerated.

Banes and J. K. Kirk, associate FDA commissioner for compliance, who also testified at the 30 July hearings, were criticized by several committee members, especially Representative Melvin Price of Illinois, chairman of the subcommittee for research, development, and radiation. Price charged that FDA was digging up data from feeding studies conducted several years ago, and was basing its claims of adverse effects on those data.

Edward S. Josephson, associate director of food radiation at the Army's Natick (Massachusetts) laboratories, wore a pained smile after the hearings. "We could fight this for ten years," he told *Science*, "but then we still might lose. Right now we have to get approval for one meat. It's simpler to get a regulation than to fight this." Josephson said that the Army is working closely with FDA officials to set up protocols for new 2-year feeding studies on irradiated ham. He said that new feeding studies on bacon were "not on our immediate schedule," but added that the Army might take up the bacon case later.

Commercial production of irradiated foods must wait until the Army and FDA work out their disagreement. Work on a commercial plant, Irradiated Foods, Inc., which was to produce irradiated meats on a large scale, was postponed after rejection of the ham petition. At this point, other interested commercial meat producers will continue to wait for FDA to approve an Army petition. Research and tests are too costly for private companies to undertake independently.

FDA is unmoved by the advantages claimed for irradiated foods—longer shelf life, safety from dangerous insects and microorganisms, no need for refrigeration. It simply wants to make sure that the products are safe, and this, it says, has not been convincingly demonstrated. Until the Army and FDA come to some kind of agreement over what constitutes acceptable data, what is an acceptable display of safety, and what are acceptable feeding studies, irradiated foods will face continued difficulty.—ANDREW JAMISON

* Included are the Nurse Training Act of 1964, the Allied Health Professions Personnel Training Act of 1966, the Health Research Facilities Act of 1956, and the section of the Public Health Service Act on public health traineeships.